

CLAIMS

What is claimed is:

1. A method for separating a cast lens from a shell mold, the shell mold and the lens forming a composite, the method comprising:
 - pressing a separating tool with a force on the lens; and
 - rotating either the composite so that the separating tool rolls passively on the lens or
 - rotating the separating tool so that the lens rolls passively on the separating tool, and guiding the separating tool along an interface between the lens and the shell mold.
2. The method according to claim 1, further comprising:
 - controlling the force according to a profile dependent on an angle of rotation of the shell mold.
3. A method for separating a cast lens from a shell mold, the shell mold and the lens forming a composite, the method comprising:
 - fixing the composite onto a holding device rotatable on an axis of rotation wherein the angle of rotation of the shell mold is designated as angle of rotation θ ;
 - adjusting a height of a separating tool and applying a force to the separating tool so that the separating tool presses against the lens adjacent to an interface between the shell mold and the lens; and
 - rotating the holding device and continuously adjusting the height of the separating tool so that the separating tool follows a height of the interface according to the actual angle of rotation θ .
4. The method according to claim 1, further comprising:

applying a further force to either the shell mold or the lens, wherein the further force is a tensile force that is already built up at the start of the separation process or is built up at least before the lens and the shell mold are completely separated from each other.

5. The method according to claim 2, further comprising:

applying a further force to either the shell mold or the lens, wherein the further force is a tensile force that is already built up at the start of the separation process or is built up at least before the lens and the shell mold are completely separated from each other.

6. The method according to claim 3, further comprising:

applying a further force to either the shell mold or the lens, wherein the further force is a tensile force that is already built up at the start of the separation process or is built up at least before the lens and the shell mold are completely separated from each other.

7. A device for separating a lens cast between a front and a rear shell mold from the two shell molds, the device comprising:

a holding device rotatable on a first axis of rotation, on which the rear shell mold can be fixed, whereby a rotational position of the shell mold to be separated is characterised by an angle of rotation θ ;

a gripper rotatable on a second axis of rotation for exerting a force on the front shell mold or, after its removal, on the lens;

a separating tool rotatable on a third axis of rotation;

a force transmitter for pressing the separating tool laterally against the lens;

a first motor for rotating the holding device or the separating tool;

a second motor for adjusting a height H of the separating tool or the holding device, the height measured along the first rotational axis; and

a control unit that controls the second motor so that the separating tool presses on the lens adjacent to an interface between the shell mold to be separated and the lens, whereby a height H of the separating tool or the holding device follows a height of the interface between the shell mold to be separated and the lens according to the angle of rotation θ .

8. The device according to claim 7, wherein the control unit controls the force exerted by the force transmitter according to a profile dependent on the angle of rotation θ .

9. The device according to claim 7, wherein the third axis of rotation of the separating tool is inclined by a predetermined angle in relation to the first axis of rotation.

10. The device according to claim 9, wherein the third axis of rotation of the separating tool is adjustable in relation to the first axis of rotation.

11. The device according to claim 8, wherein the third axis of rotation of the separating tool is inclined by a predetermined angle in relation to the first axis of rotation.

12. The device according to claim 11, wherein the third axis of rotation of the separating tool is adjustable in relation to the first axis of rotation.

13. A device for separating a cast lens from a shell mold, the shell mold and the lens forming a composite, the device comprising:

a separating tool with a straight separating means;

several holding devices rotatable on an axis and on each of which a composite can be fixed, each holding device comprising a motor for adjusting a height of the holding device relative to the separating means;

a linear conveyor drive that transports the holding devices parallel to the separating means, whereby the lenses roll on the separating means; and

a control unit that individually controls the motors of the holding devices so that a height of the lens follows a height of an interface between the lens and the shell mold.